

WHAT IS CLAIMED IS

1. A user interface display apparatus, comprising:

an image module unit for dealing with predefined image patterns;

a texture pattern unit for providing texture patterns to mix with the
5 said predefined image pattern to fancy the user interface display;

a display code-buffer unit for arranging the pattern codes which are
displayed on the user interface display window; and

a mixer unit for mixing the patterns from said image module unit
and texture pattern unit, and output the mixed signal.
- 10 2. A user interface display apparatus of Claim 1, further
comprising an outline shape index generator for providing the mixing
index information to define the outline shape.
3. A user interface display apparatus of Claim 1, wherein the
predefined image pattern could be any combination of dot pixel.
- 15 4. A user interface display apparatus of Claim 1, wherein the
texture patterns can be defined by end-user.
5. A user interface display apparatus of Claim 1, wherein the
mixer unit using overlap to mix the patterns from said image module unit
and texture pattern unit.
- 20 6. A user interface display apparatus of Claim 1, wherein the
mixer unit using alpha blending method, where $\text{output} = (\text{pattern from said image module unit}) \times \alpha + (\text{pattern from said texture pattern unit}) \times (1 - \alpha)$, the parameter alpha is a real number between 0 and 1.
- 25 7. A user interface display apparatus of Claim 1, wherein the
mixer unit using logic operation to mix the patterns from said image
module unit and texture pattern unit.

8. A user interface display apparatus of Claim 2, wherein the outline shape index generator further comprising sub-window define function.

5 9. A user interface display apparatus of Claim 2, wherein the outline shape index generator further using alpha index for image pattern.

10. A user interface display apparatus of Claim 2, wherein the outline shape index generator further using color key method for image pattern.

10 11. A user interface display apparatus, combined with an traditional on screen display and overlap the output signal, comprising:

an image module unit for dealing with predefined image patterns;

a texture pattern unit for providing texture patterns to mix with the said predefined image pattern to fancy the user interface display;

15 a display code-buffer unit for arranging the pattern codes which are displayed on the user interface display window; and

a mixer unit for mixing the patterns from said image module unit and texture pattern unit, and output the mixed signal.

20 12. A user interface display apparatus of Claim 11, further comprising an outline shape index generator for providing the mixing index information to define the outline shape.